4-PROSPECTS AND STRATEGIES FOR FARM DEVELOPMENT OF PINEAPPLE (ANANAS COMOSUS L.) TAMBAN VARIETY IN MEKARSARI DISTRICT OF ARITO KUALA REGENCY, INDONESIA

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PROSPECTS AND STRATEGIES FOR FARM DEVELOPMENT OF PINEAPPLE (ANANAS COMOSUS L.) TAMBAN VARIETY IN MEKARSARI DISTRICT OF BARITO KUALA REGENCY, INDONESIA

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ABSTRACT
Pineapple production in Mekarsari District from 2017-2021 always increases. The tamban pineapple variety is a type of pineapple cultivated by cultivating farmers in the Mekarsari District area. The objectives of this study are: 1) identify and analyze related economic aspects, to be used as a benchmark for assessing the prospects of tamban pineapple farming activities; 2) know and identify internal and external factors that can affect the success of pineapple farming; and 3) Analyze and determine appropriate strategies to develop tamban pineapple farming (Ananas comosus L.) in Mekarsari District, Barito Kuala Regency. Samples were taken as many as 30 pineapple farmers. The data analysis used is income and financial analysis, as well as SWOT analysis. The results of the profit analysis show that pineapple farming has promising economic prospects because it has a profit value of Rp 40,831,728 / ha, and an RCR value of 1.86. The most decisive internal factors in the development of tamban variety pineapple farming in Mekarsari District are the availability and suitability of land on strength factors (S1, S2) and price fluctuations on weakness factors (W3). While the most decisive external factors in the development of pineapple farming varieties are increased demand for pineapples and continuity of production on opportunity factors (O1, O3) and weather factors, pest attacks and competitors from other pineapple varieties (T3, T4, T1).

KEY WORDS
EFAS, IFAS, pineapple tamban, revenue, SWOT.

Indonesia is a country that is currently developing in various aspects, agriculture is a business field that is still a mainstay and plays an important role for people in Indonesia because of its contribution and as a support for the wheels of the national economy to date.

The application of the level of farm management and the natural fertility factor of peatlands is decisive for the ability of agricultural development on peatlands. Varying levels of peatland management will have different productivity impacts. Low to medium input management is usually found in farmers, this illustrates that the use of production factors in farm management activities is low to medium in terms of quality and quantity (Nurhayati, 2014).

Loose soil and lots of organic matter are needed for the development of pineapples so this plant is very suitable for growing on peatlands. In addition, rainfall that always falls throughout the year with an optimum temperature of 32°C is also very much needed for the growth of pineapple plants (Rukmana, 1996). Compared to other horticultural crops, pineapple plants are very tolerant of soil acidity.

In the future, the prospect of pineapple fruit development is increasingly promising. Pineapple fruit can be processed various preparations, namely pineapple syrup, pineapple slices, pineapple juice, candied pineapple, pineapple slices, pineapple jam and pineapple syrup. With the increasing population in Indonesia and the emergence of public awareness of fruit consumption, it is hoped that it will have an impact on increasing pineapple consumption (Astoko, 2021).

Pineapple production in South Kalimantan from 2017 – 2021 has increased every year. Of all the regencies/cities in South Kalimantan, Barito Kuala Regency has always been the

largest producer of pineapple production. In 2017 pineapple production figures in South Kalimantan Province reached 11,938.2 tons, Barito Kuala Regency produced pineapples of 11,443.1 tons or 95.82%. While in 2021 pineapple production in South Kalimantan Province reached 14,307.5 tons, Barito Kuala Regency produced pineapple of 13,787.9 tons or 96.37% of pineapple production in South Kalimantan, this figure illustrates that tamban pineapple production in Barito Kuala Regency is currently still very dominant in the development of pineapple production in South Kalimantan Province. Barito Kuala Regency is the largest pineapple production center in South Kalimantan, according to the official news of registration of local varieties No. publication 014/SR/PVU6/2010 on the geographical distribution of tamban pineapple plants in three districts namely Mekarsari, Tamban, and Anjir Muara.

Pineapple production in Mekarsari District from 2017 – 2021 has always increased. The tamban pineapple variety is a type of pineapple cultivated by cultivating farmers in the Mekarsari District area. Various social conditions, climate and soil ph are suitable, supporting farmers to carry out pineapple cultivation in the area so that many farmers are interested in cultivating tamban pineapple fruit. The cultivation of tamban pineapple fruit plants in Mekarsari District is quite well developed, because this type of plant is still tolerant and can continue to grow even though it grows on a fairly acidic type of land (pH <4). In terms of cultivation, tidal soil types can still be tolerated by pineapple plants, because of their growing properties that can still develop well even though they are at a rather low soil pH.

Pineapple tamban thrives in Mekarsari District and can produce large enough fruit with an average weight of 1.8 -1.9 kg per fruit. Larger than local pineapple types found in other regions, the largest honey pineapple only reaches 1.1-1.2 kg. Not infrequently also tamban pineapple fruit can weigh up to 3 kg. During this time the famous pineapple that is very large is a type of smoth cayenne originating from Brazil with weights reaching up to 2.2 - 3.6 kg.

Meanwhile, in terms of marketing, the demand for tamban pineapple fruit is quite in demand. This can be seen from the large number of collecting traders who come directly to the farmer's pineapple farm, to buy and market markets in Banjarmasin City, Martapura and surrounding areas. However, the marketing of Tamban pineapple fruit is enough to get competitors from other types of pineapple, namely the type of honey pineapple from the Basarang area, Central Kalimantan Province.

One of the obstacles in carrying out this farming is the uncertain price factor. Although the results obtained by farmers are quite large, the cost of production, especially the initial cost of land preparation, requires a fairly high cost because the type of tidal peatland requires specific tillage. On the other hand, although production is quite large, it is still not sufficient for the needs of the community in general, consumed directly in fresh form. This situation will be able to cause price fluctuations caused by an imbalance between production and consumer demand. Therefore, it is very important to know the prospects and development strategies in a tamban pineapple farming activity, so this is the basis for conducting an assessment of how the Prospects and Development Strategy of Pineapple Tamban Farming in Mekarsari District, Barito Kuala Regency.

Based on the background and formulation of the problem that has been explained, the objectives of this study are:

- Identify and analyze related economic aspects, to be used as a benchmark for assessing the prospects of tamban pineapple farming activities (Ananas comosus L.) in Mekarsari District, Barito Kuala Regency;
- Know and identify internal and external factors that can affect the success of tamban pineapple farming (Ananas comosus L.);
- Analyze and determine appropriate strategies to develop tamban pineapple farming (Ananas comosus L.) in Mekarsari District, Barito Kuala Regency.

METHODS OF RESEARCH

This research will be carried out in Mekarsari District, Barito Kuala Regency, South Kalimantan Province. The activity time will start from August 2022 to April 2023, with

activities including research preparation, data collection, data analysis and making research reports.

Based on the source, the data collected in this study are primary data and secondary data. Primary data is data collected directly from the field by observation methods and interviews with parties related to the research topic. Interviews were conducted using questionnaires that had been prepared in advance according to the research objectives.

While secondary data is needed to support primary data obtained from related institutions and agencies such as the Central Bureau of Statistics of South Kalimantan Province, the Central Bureau of Statistics of Barito Kuala Regency, the Food Crops and Horticulture Agriculture Office of Barito Kuala Regency and the Agricultural Extension Center (BPP) of Mekarsari District.

The sampling method used is Multi Stages Sampling with the sampling process as follows:

1. The first stage is to select two villages in Mekarsari District based on the number of farmers who cultivate the most tamban pineapple plants.
2. The second stage is grouping / stratifying the population of farmers who cultivate pineapples into 3 groups based on arable area, namely:
   - Farmer groups with a land area of more than 1 hectare are included in the Strata I (area) category;
   - Farmer groups with a land area of 0.5 – 1 hectare are included in the Strata II (medium) category;
   - Farmer groups with a land area of less than 0.5 hectares are included in the Strata III (narrow) category
3. The third stage determines the number of samples that can represent each strata. According to Arikunto (2006) regarding sampling techniques, if the population is less than 100 it is better to take all. But if the population is more than 100 then samples can be taken between 10-15% or 20-25%. Sampling of pineapple farmers in each village can be seen in the following table.

Table 1 – Pineapple farmer sampling

No.	Village	Number of population (people)	Number of samples (people)
1.	Mekarsari	100	25
2.	Land Height	102	25
Sum		202	50

Source: BPP Mekarsari District, 2022.

Income and financial analysis is used to answer the first goal, which is to identify and analyze related aspects, which will be used as a benchmark for assessing the prospects of pineapple farming activities. Meanwhile, the financial feasibility analysis uses the RC ratio of pineapple farming carried out, so that the aspect to assess the prospects of pineapple farming activities can be fulfilled.

Explicit costs are all costs that are actually incurred by farmers in organizing a farm. The types of explicit inputs used in pineapple farming activities consist of the cost of using seeds, fertilizers, pesticides, fruit stimulants, depreciation of tools, and labor costs outside the family. To calculate the explicit cost can use the formula:

$$TCe = \sum_{i=1}^{n} (Xi.Pi) \qquad (1)$$

Where:

- TCe: Total explicit cost, Rp;
- Xi: The physical amount of input that makes up the i-th explicit charge;
- Pxi: I-th input price;
- I: 1,2,3,4..... n.

Implicit costs are costs that are only calculated as costs, not actually getting expenses paid in real terms by farmers. The types of implicit inputs used in pineapple farming activities are the cost of renting one's own land, labor costs in the family, and interest on one's own capital. To calculate implicit costs can use the formula:

$$TCi = \sum_{i=1}^{n} (Xi.\ Pi) \qquad (2)$$

Where:

- TCi: Total implicit cost;
- Xi: The physical amount of input that makes up the i-th implicit cost;
- Pxi: I-th input price;
- I: 1,2,3,4..... n.

Farm revenue is the product between the amount of output or physical production obtained during the production period and the price. To calculate receipts can use the following formula:

$$TR = Q.P \qquad (3)$$

Where:

- TR: Total revenue;
- Q: Production from pineapple farming (quantity);
- P: pineapple selling price (price).

To find out the income of farmers from pineapple farming is done by calculating the difference or reduction between the amount of revenue value and the real (explicit) costs incurred. How to calculate income is:

$$I = TR - TCe \qquad (4)$$

Where:

- I: Pineapple farming income (income), Rp;
- TR: Total revenue of pineapple farming (total revenue), Rp;
- TCe: Total explicit cost, Rp.

Likewise, to find out the benefits of farmers by calculating the difference between the value of all revenues obtained and all costs (explicit costs and implicit costs) that have been incurred in the implementation of production activities. Profit is calculated using the following formula:

$$\Pi = TR - TC \qquad (5)$$

Where:

- Π: Profit from pineapple farming (profit);
- TR: Total revenue;
- TC: Total cost of pineapple farming (total cost).

While the financial analysis (RC Ratio) used to determine the feasibility of pineapple farming is carried out mathematically, this can be written as follows (Soekartawi, 2003):

$$R/C = \frac{TR}{TC} \qquad (6)$$

Where:

- TR = Total Receipts;
- TC = Total Cost.

Decision Framework:

- If the R/C ≥ 1, then pineapple farming is said to be a prospect for development;
- If the R/C < 1, then pineapple farming is said to have no prospects for development.

SWOT analysis is carried out to answer the second and third objectives, namely knowing and identifying internal and external factors that can affect the success of pineapple

ming and analyzing and determining appropriate strategies to develop pineapple farming. SWOT analysis is an assessment of the results of the identification of the situation, to determine a condition that can be categorized as strengths, weaknesses, opportunities and threats.

To analyze the strategy of developing tamban pineapple farming in Barito Kuala Regency, a SWOT analysis was used. The data obtained through interviews conducted with pineapple farmers were included in the SWOT analysis. Here are the steps to analyze it:

- Data Collection.

This total value indicates farmers who react to strategic factors in their external environment. The use of this total score is used to compare these farmers within the same group. If it has completed its internal strategic factor analysis (strength and weaknesses) then it must also analyze its external factors (opportunities and threats) in the same way as well.

- Internal Strategy Factor Matrix (IFAS).

The factors of the tamban pineap farming development strategy are identified to the next step, which is to enter it into the IFAS (Internal Strategic Factors Analysis Summary) table which will be compiled to formulate internal factors, steps in the following way: determine e strengths and weaknesses of farming in column 1 of the IFAS matrix; weighting these factors on a scale ranging from 1.0 ost important) to 0.0 (not important); calculate the rating in the third column (3) for factors based on the influence of these factors on the con ion of the farm concerned and are variables with a positive nature (all variables that will be included in the strength category) assessment ranging from +1 to +4 (very good) by comparing them with the average competitors, while variables that are negative, the opposite; the weights are reversed in column 2 with branches in column 3, to get the weighti factor in c e results obtained are in the form of weighting scores for factors scores (in co 4), obtained from effort. can show a picture of the business that rea strategy he l on this l as a comparison of companies.

- External Strategy Factor Matrix (EFAS).

H ine exter l column (5 to 10 opportu eats); the tarting and starting from 1.(ant) to 0.(e an impact on the strategi ained later; t next step is to which each fa), influenc rob t have positive (the greater the chance chance obtain s small it will be given +1 space). Threat is e opposite. thr t, the bigger it is given a rating (-4) and the smaller it is rated (-1); the weight is multiplied y the rating i sults obtaine weighted scores on factors that var). and vice versa; sum of the weighting the is used r the weighting for the farmer studied.

After obtaining the results, conduct a matrix analysis to find out what policies are taken. So that businesses take policies that are in accordance with the circumstances of the company or the business carried out.

The operatio l definition of research that is compiled to further direct this research, namely as follows: the data used in this study is data recorded in 2021- 2022; data collection carried out in 2022.

RESULTS AND DISCUSSION

Pineapple farming costs carried out by pineapple farmers in Mekarsari District consist of explicit costs and impli costs. This explicit cost of farming is a cost directly incurred by pineapple farmers, while implicit costs are costs that are indirectly / intangibly incurred by

pineapple farmers. The farming costs incurred by pineapple farmers in Mekarsari District amounted to Rp 47,368,272 / ha. The farm costs consist of explicit costs of IDR 25,861,250 / ha, while implicit costs of IDR 21,507,022 / ha.

Explicit Costs. Explicit costs in pineapple farming consist of the cost of using seeds, fertilizers, pesticides, fruit stimulants, depreciation of tools, and labor costs outside the family. The explanation of these costs can be seen as follows.

Seeds used in pineapple farming activities are seeds from pineapple saplings. Pineapple saplings taken are selected saplings, with the conditions as seedlings. The interview results stated that more than 80% of farmers use stem buds as seedlings, while the rest use seeds from other parts of the plant. The reason for using stem buds is to acquire a good pineapple tree and quickly bear fruit. This is in accordance with Sunarjono's (1987) opinion that between suckers, shoots, and crowns, there are differences in physiological properties in flowering age and production. The more advanced the plant, the longer its life and low production.

The number of seeds used in farming activities in Mekarsari District consists of 15,000 seedlings, with an average seed price of Rp 1,000 / stem. So that the cost of using seeds in pineapple farming in Mekarsari District is Rp. 15,000,000,- / ha.

Fertilizers used in pineapple farming in Mekarsari District include urea fertilizer, NPK fertilizer and agricultural lime. The fertilizer used in pineapple farming tends to be a type of macro fertilizer. As for agricultural lime, it is used to reduce soil acidity by raising the soil pH in the pineapple farm. The cost of fertilizer per hectare incurred by pineapple farmers in Mekarsari District, shows that the cost of using fertilizer in pineapple farming per hectare is Rp 4,700,000 / ha. The cost of using toal fertilizer consists of urea fertilizer costs of IDR 2,100,000 / ha, NPK fertilizer use costs of IDR 1,250,000 / ha, and agricultural lime use costs of IDR 1,350,000 / ha. The largest fertilizer cost is the use of urea fertilizer, while the least is NPK fertilizer.

Pesticides are chemical substances and other materials used to control various plant disturbing organisms (Yennie &; Elystia, 2013). Pesticides used by pineapple farmers in pineapple farming activities are types of pesticides for weed control (herbicides). The cost of pesticides incurred by farmers during pineapple farming in Mekarsari District, shows that the cost of using pesticides in pineapple farming is Rp 930,000 / ha. The largest pesticide cost is used for systemic herbicide pesticides, which is Rp 480,000 / ha. While the use of smaller contact herbicides is only Rp 450,000 / ha.

This fruit stimulant is a type of chemical used to stimulate plants to be able to flower so as to produce fruit. This fruit stimulant can regulate the fertilization schedule of pineapple farming. The type of fruit stimulant used in pineapple farming activities in Mekarsari District is generally in the form of ethril. How to use it is by spraying pineapple plants. The cost incurred by farmers for the use of this fruit stimulant is Rp 440,000 / ha (8 liters at a price of Rp 55,000 / liter).

Equipment used in pineapple farming activities, consisting of machetes, sickles, hoes, sprayers, lanjung, sundak, boots, sacks and gloves. These equipment have an economical age limit for their use. The depreciation cost of equipment incurred by pineapple farmers per hectare is Rp 391,250 / ha. The largest depreciation cost comes from depreciation on sprayer equipment, which is Rp100,000/ha. While the smallest depreciation cost comes from equipment in the form of gloves, which is only Rp 3,750 / ha.

Labor in the explicit cost calculation is labor outside the family (TKLK). The calculation of TKLK is a labor cost incurred through direct payment of wages, or labor that is outside of the farmer's household members. Labor costs outside the family are found in various pineapple farming activities. The TKLK cost for pineapple farming per hectare in Mekarsari District is Rp 4,400,000 / ha. Farming activities that become the largest TKLK are found in land clearing / processing activities, which is Rp 2,400,000 / ha. While farming activities that become the smallest TKLK are found in transportation activities, which is only Rp 400,000 / ha.

Implicit Costs. The implicit cost of pineapple farming in Mekarsari District consists of the cost of renting one's own land, labor costs in the family, and interest on one's own capital. The explanation of each of these costs is as follows.

Pineapple farming land cultivated by farmers is their own land. So the cost of the land is calculated as an implicit cost, which is not directly incurred by farmers. The cost of the own land is calculated by the lease approach. The cost of renting one's own land in pineapple farming is IDR 2,500,000 / ha or IDR 1,631,750 / farm.

Labor in the family (TKDK) is labor that is not paid directly through wages. TKDK is a member of the household that assists in farming activities. The labor costs in the family incurred by pineapple farmers in their farming activities in Mekarsari District are Rp 17,120,000 / ha. Farming activities that become the largest TKDK are found in land cleaning and processing activities, which is Rp 4,400,0000 / ha, while agricultural activities become the smallest TKDK are found in transportation activities, which is only Rp 320,000 / ha.

Pineapple farming cultivated by pineapple farmers in Mekarsari District uses their own capital. The use of own capital makes pineapple farmers not incur interest expenses, when compared to if farmers use capital through loans. So that the calculation of capital interest itself is categorized as an implicit cost that is not incurred directly by farmers. The calculation of interest costs on own capital is based on Bank Indonesia's reference interest rate of 5.75%, while the total capital issued by farmers is IDR 25,861,250 / ha, so that the interest cost of own capital on pineapple farming is IDR 1,487,022 / ha or IDR 970,579 / farmer.

Production, Receipts, Revenues and Profits. Pineapple will start flowering at the age range of 9 months, then after the next 3 months pineapple will be able to be harvested as the first harvest. The pineapple plant will be able to bear fruit again, so that a second harvest will be carried out. Production is the harvest of pineapples calculated based on the number of pineapples produced. Revenue is the result of production calculated by the value of the selling price. Revenue is the result of a reduction between receipts and explicit costs, while profit is revenue reduced by the total cost of farming. The production, revenue, income and profit of pineapple farming per hectare can be seen in Table 2.

Table 2 – Production, revenue, income and profit of pineapple farming per hectare

No	Description	Unit	Per Farm	Per Hectare
1	Pineapple production			
	• 1st harvest	seed	7.832	12.000
	• 2nd harvest	seed	5.874	9.000
2	Production of pineapple seedlings	Tiller	3.916	6.000
3	Pineapple selling price	Rp/ seed	4.000	4.000
4	The selling price of pineapple seedlings	Rp / tillers	700	700
5	Acceptance			
	• Pineapple fruit	Rp	54.826.800	84.000.000
	• Pineapple seedlings	Rp	2.741.340	4.200.000
6	Explicit charges	Rp	16.879.638	25.861.250
7	Income	Rp	40.688.502	62.338.750
8	Total cost of farming	Rp	30.917.271	47.368.272
9	Advantage	Rp	26.650.869	40.831.728

Source: Primary Data Processing, 2023.

Based on the data presented in Table 2, it shows that the revenue generated from pineapple farming consists of pineapple fruit production itself and pineapple seed production. The revenue from pineapple fruit production is IDR 84,000,0000 / ha, sourced from production in the 1st harvest and 2nd harvest. While other revenues from the production of pineapple seeds produced from pineapple saplings, which amounted to Rp 4,200,000 / ha. Pineapple farming income after being calculated by subtracting all revenues with explicit costs, resulted in pineapple farming income of Rp 62,338,750 / ha. Meanwhile, the profit of pineapple farming per hectare cultivated by pineapple farmers in Mekarsari District is IDR 40,831,728 / ha.

The feasibility of farming in this study is seen through the value of revenue cost ratio (RCR) or the ratio of revenue to farm costs. If the RCR is greater than one, then the farm is

worth working on, but if the RCR is less than one, then the farm is not worth working on, and if the RCR is equal to one, then the farm is in breakeven condition (BEP).

Based on the calculation of the revenue cost ratio (RCR) analysis or the ratio of revenue in this study, it was found that the RCR value was 1.86. Thus, it can be concluded that pineapple farming is very feasible to cultivate, because every one unit of cost incurred will result in revenue of 1.86 times.

Environmental factor analysis is a process used by strategic planners to monitor the environmental sector in determining business opportunities or threats. Environmental analysis can also be said to be the activity of monitoring, evaluating, and disseminating information from external and internal business conditions. Determination of strategy selection is expected to be a match between the chosen strategy by first understanding environmental conditions both internal and external in order to get optimal results.

In the analysis of the internal environment, strengths and weaknesses of each function aspect of pineapple farming can be identified that can affect farm performance. Internal factors that affect the increase in the competitiveness of pineapple farming include the following:

1. Internal Factors – Strength (Strengths):
   - Availability of agricultural land;
   - Suitability of land conditions;
   - Availability of superior and certified seedlings;
   - Workforce availability and skills;
   - Product quality;
   - Knowledge and experience of pineapple farming;
   - Institutional farmer groups.
2. Internal Factors – Weakness:
   - Farm capital;
   - Farm management;
   - Effects of price fluctuations;
   - Marketing channel information and access;
   - The use of pineapple cultivation technology;
   - Farm road infrastructure;
   - Government policy.

The external environment analysis is directed at external strategic factors that greatly affect the improvement of pineapple farming competitiveness, but these factors are beyond the reach of farmers' control. This analysis is also a consideration for farmers to determine the right steps in overcoming and utilizing threats and opportunities both now and in the future. The external factors that affect the development of pineapple farming in Mekarsari District include the following:

1. External Factors – Opportunities:
   - Increased demand for pineapple fruit;
   - The increasing selling price of pineapple from year to year;
   - Production continuity;
   - Business partners;
   - pineapple processing industry;
   - Assistance from the government in the form of sustainable development programs.
2. External Factors – Threats:
   - Competitors of other varieties of pineapple fruits;
   - Land use change;
   - Weather factors;
   - Pest attack (plant nuisance organisms);
   - Increase in the cost of production inputs.

The IFAS and EFAS matrix in pineapple farming in Mekarsari District was obtained based on the results of identifying strengths and weaknesses as components that make up the internal factors of the farmer, as well as opportunities and threats as elements that make up the external factors of pineapple farming. These two factors are fundamental assessments in the formulation of the right strategy to increase the competitiveness of pineapple farmin

Weighting and rating of internal and external factors was obtained through filling out questionnaires conducted by several people who were subjects in this study. After the weight and rating are obtained, then the weight and rating are multiplied to get the value or score that has been weighted.

The total internal environment score of pineapple farming in Mekarsari District is 1.14. This indicates that pineapple farming in Mekarsari District has strong internal business strength and is able to overcome the weaknesses of its farming. This is because pineapple farming has land availability and suitability of land conditions that are very supportive of the development of pineapple farming. The IFAS matrix also shows that the total strength score is higher at 1.90 compared to the total weakness score at -0.76. The strength and weakness score indicates that the strength strategic factor has a higher response to the success of pineapple farming development in Mekarsari District. In addition, pineapple farming development strategies that have been implemented by farmers are more effective in respo ling to strengths than weaknesses.

Based on the data presented in Table 10, it shows that the total external environment score of pineap farming in Mekarsari District is 0.64. This indicates that pineapple farming has been able to take advantage of external opportunities and be able to avoid threats to pineapple farming. The EFAS matrix also shows that the total odds score is higher at 1.33 compared to the total threat score at -0.69. The total value of the opportunity and threat score shows that pineapple farming responds higher to opportunity factors than to threat factor

Based on the calculation results of IFAS and EFAS matrices, the next stage is external internal matrix analysis (IE). This stage is one of the stages in the formulation of a strategy to see the position of pineapple farming. The IE matrix consists of four quadrants that reflect the state and position of pineapple farming in determining the next strategy. The four quadrants in ques n are as follows:

- Quadrant I: It is a very favorable situation, the company has internal opportunities and strengths, so that with the strengths it has it n take advantage of existing opportunities to be an advantage for the company. The strategy that must be applied in this condition is to support an aggressive growth policy (growth oriented str gy);
- Quadrant 2: The company faces various threats, but has internal strength. Despite facing various threats, the company has internal strength. The strategy that must be applied is to use the power to take advantage of long-term opportunities by means of a diversification strategy (product/market);
- Quadrant 3: The company faces a huge market opportunity, but on the other hand it faces some internal constraints/weaknesses. The focus of corporate strategy like this is to minimize internal company problems so that it can seize better market opportunities;
- Quadrant 4: This situation is an unfortunate situati, where the company experiences various internal threats and weaknesses. The strategy that can be applied when facing this situation is to defend while minimizing internal weaknesses and avoiding threats while looking for opportunities.

The IE matrix is based on a matching stage analysis determined based on the total value of the IFAS and EFAS matrix scores of pineapple farms. Pineapple farming in Mekarsari District has a total IF matrix score of 1.14 and EFAS of 0.64. The picture of the position of pineapple farming in the IE matrix can be seen in Figure 1.

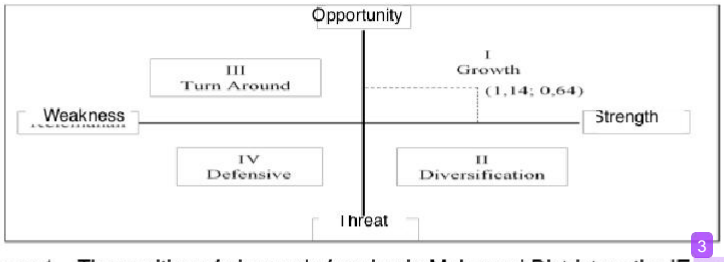

Figure 1 – The position of pineapple farming in Mekarsari District on the IE matrix

Based on the total score of the IFAS and EFAS matrix, the position of pineapple farming in Mekarsari District is in quadrant I. This can be interpreted that pineapple farming is the stage of growing and developing. Strategies that can be used at this stage are intensive strategies such as market penetration, market development or product development.

Market penetration and development strategies in efforts to develop pineapple farming that can be done include searching for information on the current state of market trends, and conducting more intense marketing or promotion through the use of the internet and social media. Meanwhile, product development strategy can be done through diversification of processed products, and evaluating production efficiency in farming, as well as collaborating with several processing industries, both small and large industries.

SWOT Analysis. Based on the results of identification of internal and external factors, namely strengths, weaknesses, opportunities and threats, the next step is to formulate a strategy using SWOT analysis. This analysis uses data that has been obtained from the IFAS and EFAS Matrices. The SWOT matrix is used in formulating pineapple farming development strategies in Mekarsari District, the resulting strategy consists of S-O (Strength - Opportunities), W-O (Weakness - Opportunities), S-T (Strength - Threat), and W-T (Weakness - Threat) strategies. The following are alternative strategies formulated based on the SOWT matrix can be seen in Table 3.

Table 3 – SWOT matrix for pineapple farming development in Mekarsari District

IFAS / EFAS	Strength (S) • Availability of agricultural land • Suitability of land conditions • Availability of superior and certified seedlings • Workforce availability and skills • Product quality • Knowledge and experience of pineapple farming • Institutional farmer groups	Weakness (W) • Farm capital • Farm management • Effects of price fluctuations • Marketing channel information and access • The use of pineapple cultivation technology • Farm road infrastructure • Government policy
Opportunities (O) • Increased demand for pineapple fruit • The increasing selling price of pineapple from year to year • Production continuity • Business partners • Pineapple processing industry • Assistance from the government in the form of sustainable development programs	Strategy S – O • Workforce development for and land optimization to maintain production continuity • Making processed products with a variety of product diversification	W – O Strategy • Expanding distribution network through cooperation with business partners and pineapple processing industry • Marketing directly to end consumers, by utilizing online media • Search for information on the state of market trends • Improve cultivation technology to meet pineapple demand
Threats (T) • Competitors of other varieties of pineapple fruits • Land use change • Weather factors • Pest attack (plant nuisance organisms) • Increase in the cost of production inputs	Strategy S – T • Contract prices with business partners and the pineapple processing industry • Increase customer loyalty • Using farming experience to cope with OPT attacks	W – T Strategy • Conduct periodic internal production efficiency evaluations • Conducting capital lending initiatives for business development

CONCLUSION

Based on the results of the discussion that has been done, the author can draw the following conclusions:

- The results of the profit analysis show that pineapple farming has promising economic prospects because it has a profit value of Rp 40,831,728 / ha, and an RCR value of 1.86;
- The most decisive internal factors in the development of tamban variety pineapple farming in Mekarsari District are the availability and suitability of land on strength factors (S1, S2) and price fluctuations on weakness factors (W3). While the most decisive external factors in the development of pineapple farming varieties are increased demand for pineapples and continuity of production on opportunity factors (O1, O3) and weather factors, pest attacks and competitors from other pineapple varieties (T3, T4, T1);
- Alternative S-O strategies are: (a) labor development for and land optimization to maintain production continuity and (b) making processed products with various product diversifications. Alternative W-O strategies are: (a) expanding distribution networks through cooperation with business partners and pineapple processing industry; (b) conduct direct marketing to end consumers, utilizing online media; (c) search for information on the state of market trends; (d) improve cultivation technology to meet pineapple demand. Alternative S-T strategies are (a) entering into price contracts with business partners and the pineapple processing industry; (b) increase customer loyalty; (c) use farming experience to cope with OPT attacks. Alternative strategies. Alternative W-T strategies are: (a) conducting periodic internal production efficiency evaluations, and (b) conducting capital lending initiatives for business development.

Based on the results and discussion in this study, it is recommended to farmers as research subjects to apply various alternative strategies resulting from the SWOT matrix analysis. So that the development of tamban variety pineapple farming will be able to run well, measurably and planned.

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